

each sex containing macropterous and brachypterous forms (Fullaway, 1918). One male specimen from Guangzhou was entirely wingless (Fig. 1), a condition that has not been reported for *P. maidis*. Completely wingless males and females were found in a population of the sugarcane delphacid (*Perkinsiella saccharida* Kirkaldy) by Osborn (1969).—James H. Tsai, Stephen W. Wilson and Hwei-Chung Faan, Fort Lauderdale Research and Education Center, University of Florida, IFAS, Ft. Lauderdale, Florida 33314, Department of Biology, Central Missouri State University, Warrensburg, Missouri 64093 and Department of Plant Protection, South China Agricultural University, Guangzhou, Guangdong, China.

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### NEW NORTH AMERICAN RECORDS OF EUROPEAN PARASITOIDS (HYMENOPTERA) OF THE LINDEN APHID, *EUCALLIPTERUS TILIAE* L. (APHIDOIDEA: DREPANOSIPHIDAE)

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Lindens (*Tilia* spp.) are frequently planted as shade and street trees, especially in the eastern United States. Although some species in the genus *Tilia* are native to North America, the most common ornamental species in the United States are endemic to Europe (Walheim, 1977). The linden aphid, *Eucallipterus tiliae* L., is also native to Europe, where it feeds only on *Tilia* spp. The first report of *E. tiliae* from North America appeared in 1886 (Olkowski et al., 1982a). This aphid is summer-active and often reaches large population levels in both Europe (Dixon, 1971a, b) and North America (Maino and Howard, 1955; Sunset Books and Sunset Mag-

azines, 1979). Large populations of *E. tiliae* become pestiferous due to the copious amounts of honeydew they produce.

A spectrum of natural enemies are associated with linden aphids in Europe. This note constitutes the first report of two European parasitoids of *E. tiliae* in New York State, one of which has not previously been reported from North America. Mummies from which these parasitoids emerged were collected from little-leaf linden, *Tilia cordata*, on the Cornell University Campus on June 6 and 15, 1985. Specimens of *Trioxys tenuicaudus* Stary were determined using Stary (1978) and the identification was confirmed using specimens determined by the author of this species. *Aphelinus subflavescens* (Westwood) was identified using the generic key provided by Mackauer (1972) and the species description of Ferrière (1965). Voucher specimens of both species have been deposited in the Cornell University Insect Collection under Lot No. 1148.

#### *Trioxys tenuicaudus* Stary

*Trioxys tenuicaudus* belongs to the family Aphidiidae. Stary (1978) reports *T. tenuicaudus* from Czechoslovakia, Latvia, U.S.S.R., and Australia. Introductions of parasitoids of tree-dwelling aphids for biological control were made in northern California in 1972. One shipment included *T. tenuicaudus* which is now established in Berkeley, California and provides control for *Tinocallis platani* on elm trees (Olkowski et al., 1982b).

*Trioxys tenuicaudus* parasitizes only aphids in the family Drepanosiphidae (*sensu* Heie, 1980). European host aphids and host plants include: *Eucallipterus tiliae* on *Tilia*; *Myzocallis coryli* on *Corylus*; *Tinocallis platani* on *Ulmus*; *Tuberculatus annulatus* on *Quercus robur*; *Tuberculoides* sp. on *Quercus* (Stary, 1978). In Australia, specimens were reared from *Myzocallis castanicola* on *Quercus canariensis* (Carver and Stary, 1974).

Adults of *T. tenuicaudus* are 1.2–2.2 mm long and are distinguished from other *Trioxys* species by the almost hairless dorsal aspect of the prongs which extend from the terminal abdominal sternites (Stary, 1978). Mummies are a golden to bronze color.

#### *Aphelinus subflavescens* (Westwood)

*Aphelinus subflavescens* previously belonged in the monotypic genus *Mesidiopsis* in the family Aphelinidae. *Mesidiopsis* was recently included within *Aphelinus* as a subgenus (Bouček and Graham, 1978). *A. subflavescens* is distributed throughout Europe (Ferrière, 1965) and has not previously been reported from North America (Gordh, 1979). I have now identified specimens of *A. subflavescens* from New York State, California, and Oregon. I reared mummies collected in Albany and Berkeley, California from the following host aphids: *Myzocallis coryli* on *Corylus maxima* (VII-30-84, X-1-84); and *Tuberculatus annulatus* on *Quercus robur* (VII-80). Specimens were also reared from mummies of *Myzocallis coryli* on *Corylus* sp. collected on VI-27-84 near Corvallis, Oregon by R. Messing.

*Aphelinus subflavescens* parasitizes only arboreal aphids. The host range of *A. subflavescens* for both host aphids and tree species they feed on is broader than that

of *T. tenuicaudus*. Known aphid hosts in Europe are listed below as well as the genera of host plants most commonly associated with these aphid species: *Hoplocallis pictus*, *Tuberculoides eggleri*, and *Tuberculatus annulatus* on *Quercus*; *Symydobius* sp., *Kallistaphis* sp., *Betulaspis* [sic] (*Betulaphis*?) sp., and *Calaphis* sp. on *Betula*; *Eucallipterus tiliae* on *Tilia*; *Myzocallis carpini* on *Carpinus*; *Drepanosiphum oregonensis* (= *zimmermani*) on *Acer*; *Pterocallis* sp. on *Alnus*; *Myzocallis coryli* on *Corylus* (Patch, 1938; Ferrière, 1965; Richards, 1976).

Adults of *A. subflavescens* are very minute, 0.5–0.9 mm long (Ferrière, 1965). To identify this species, males must be collected. Females are entirely yellow while males have a black marking, usually in the shape of a C, on the distal part of the midtibia. The distal part of the metatarsus of the midleg is also black. Mummies are black and therefore, readily distinguished from *T. tenuicaudus* mummies.

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